REMARKS

In the outstanding office action, claims 1-13 were rejected under 35 USC §101, 102, and 112. In addition, the drawings were objected to under 37 CFR 1.83(a) and the information disclosure statement submitted in January in 2006 was objected to for failing to include a concise explanation of relevance pursuant to 37 CFR 1.56(c). By way of this amendment, claim 1 and 13 are amended and arguments are submitted to overcome the objections and rejections raised by the Examiner.

First, with respect to the drawing objection, a substitute drawing is enclosed herewith addressing the issue raised by the Examiner. Accordingly, this rejection should be withdrawn.

Secondly, with respect to the information disclosure statement, the Examiner indicates that the foreign language Aubry reference (namely, PCT application WO 02/32316) has not been fully considered as a concise explanation of relevance was not submitted. Applicants respectfully disagree. A concise explanation of relevance was not submitted as an English language abstract was submitted on the face of the PCT application. As stated therein, the Aubry reference concerns "a method for focusing acoustic waves useful for obtaining an image of a field to be observed in a dissipative heterogeneous medium around which acoustic transducers form an imaging network and a target network". Aubry is accordingly related to the field of the pending application. As this was submitted at the time of the filing of the information disclosure statement, no additional fees or certifications are necessary. However, if it may be useful for the Examiner, a copy of U.S. Patent No. 7,101,337 stemming from that PCT application and fully in English is enclosed herewith for the Examiner's review.

Claims 1-13 have been rejected under 35 USC §112, first paragraph, as failing to comply with the enablement requirement. More specifically, the Examiner indicates that an acoustic signal cannot be monochromatic. However, the definition of the monochromatic signal is a signal of a single frequency, whatever the nature of the signal. This rejection should therefore be withdrawn.

The Examiner also expresses that it is unclear from the specification and drawings how the emission and reception points can belong to the medium. Since the claim

now recites that these points are included in the medium, this rejection should be withdrawn as well

It should be noted that the impulse response which is determined by the method according to the invention is not limited to an impulse response between two transducers The transducers are useful to determine the impulse response, but after such determination, the impulse response is still valid after the transducers are taken away from the medium. Indeed, the impulse response can then be used to send a signal through a transducer situated for instance at one of the points and for instance to focus acoustic waves on some other point of the medium and in this case, there would not be necessarily the transducer at said other point during use of the impulse response. Conversely the impulse response may be used to focus acoustic waves in reception, in which case transducers will be provided at reception points, in order to receive signals coming from emission points which may be deprived of transducers (the acoustic waves emitted at the emission points may for instance come from a submarine or any other type of emitter).

Claims 1-13 have also been rejected under 35 USC§112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejection based on the fact that acoustic signals cannot be monochromatic should be withdrawn for the same reasons as explained above. The rejection based on the emissional reception points belonging to the medium should also be withdrawn due to the claim amendment, as explained above.

Claims 1-13 were rejected under 35 USC §101 stating that the claimed invention is directed to non-statutory subject matter. Applicants disagree. The claimed method implies a step of emission and reception which cannot be performed by someone in his head Performing the claim method will imply for instance immerging transducers in the sea, emitting and receiving signals through these transducers, storing the received signals and treating the received signals.

Further, the method is useful since it enables later focusing of acoustic signals in the medium, either in emission, or in reception, for purposes such as communication and detection in the medium.

Finally, the examiner rejects claims 1-2, 5-13 as anticipated by Hossack et al., U.S. Patent No. 5,696,737. Hossack discloses an imaging method which simultaneously uses several frequencies, each focused on different zones of a medium, therefore enabling imaging these several zones simultaneously.

However, such method implies that one knows how to focus the acoustic waves on each zone, and therefore that one knows in advance the impulse responses between the emission points and the reception points in the medium. Hossack does not explain in any way how to determine such impulse responses and a theoretical computation of such impulse responses is totally impossible due to the complexity of these impulse responses in any real world medium. Therefore, Hossack does not disclose any method of determining impulse responses of a medium and the 35 U.S.C. §102 rejection should be withdrawn.

In light of all the foregoing, Applicants respectfully submit that the pending application and all pending claims 1-13 are in condition for allowance. Applicants respectfully solicit same. Should the Examiner have any questions, he is invited to telephone the undersigned

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Respectfully submitted,

By _____
Thomas A. Miller
Registration No.: 40,091
MILLER, MATTHIAS & HULL
One North Franklin Street
Suite 2350
Chicago, Illinois 60606
(312) 977-9902
Attorney for Applicant